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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,561	09/15/2000	Bruce Ha	81450RLO	1796

7590

09/02/2004

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/662,561	Applicant(s) HA ET AL.	
	Examiner Aristotelis M Psitos	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-34 is/are allowed.
- 6) ☒ Claim(s) 1-17 and 20-26 is/are rejected.
- 7) ☒ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Applicants' response of 7/1/04 has been considered with the following results.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the flag generating ability, and logic circuitry as defined in claims 18 and 27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicants' comments are not understood. Claimed elements/steps are NOT SHOWN. THEY MUST BE SHOWN in accordance with the above rule.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 10 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 10, this is a desired result, however, there is no element/means recited that will yield such a desired result(s).

With respect to claim 15, there is no EFM flag pulse generating element/means positively recited.

NO ART IS DEVELOPED with respect to the limitations of these claims.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. With respect to claim 10, there is no element in the claim (recited) to provide for the function. Hence the rejection is maintained. With respect to claim 15, the function does not follow since there is no clear

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element/step claimed that provides the input signal. Hence the final resultant – desired master optical disc fails to materialize.

AS FAR AS THE CLAIMS RECITE POSITIVE LIMITATIONS THE FOLLOWING ART
REJECTIONS ARE MADE.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6,11-14,17,21 AND 22 ARE rejected under 35 U.S.C. 102B/E as being anticipated by either Ogata et al or Endoh et al.

With respect to Ogata et al, applicants' attention is drawn to figure 4 and 5 and the disclosures thereof. As indicated in these figures, light source or sources of the appropriate wavelength are provided which are then further appropriately modulated by elements to provide for both EFM and wobble modulation. These beams are then combined by element 25 and further optical elements are provided to apply such to a recording medium. The appropriate element(s) are found to rotate the record medium accordingly. Although not particularly depicted, the system must be coordinated in order to provide for the information to be recorded accordingly. Hence the examiner concludes that there must be a modulation control element/means/system to coordinate the signal generation and rotation of the disc in order to yield the final hybrid disc.

With respect to Endoh et al, applicants attention is drawn to figure 5, which also depicts a laser source providing for the plurality of optical beams and subsequently having such further processed by appropriate modulating subunits in order to provide for the efm and wobble ability - see the discussion of

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subunits 21-23. Again, the examiner concludes that there must inherently be a modulation control unit/element for the appropriate overall coordination in order to yield the final hybrid record.

With respect to claims 2,3 and 13 & 14 see the above analysis for either of the references.

With respect to claim 4, in either reference a single laser source further provides for the multi-beams by a splitting means.

With respect to claim 5, only Ogata et al provides such. Hence, Endoh et al is not relied upon under 102 to anticipate this claim.

With respect to claim 6, the examiner concludes that appropriate intensity level is provided for in order to provide a wobble beam. This wobble beam has a width, and hence both systems inherently meet this limitation.

With respect to claims 11 and 12, since the final product is a hybrid disc, and the disc is appropriately rotated in order to provide for both the wobble and the information thereon, the limitations of this claim are met.

With respect to claim 17, an optical modulator is provided for.

With respect to claim 21 since EFM signals are appropriately provided for in either of the above systems, this limitation is met.

With respect to claim 22, since atip signals are provided for in either of the above systems, this limitation is met.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. Applicants' attention is drawn to col. 4 lines 1-7 for instance. The examiner cannot reconcile the argument focusing upon the information pit/absence and the claimed limitations. The rejections are maintained. In Endoh the tracks are wobbled.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endoh et al as applied to claim 1 above, and further in view of Ogata et al.

Although Endoh et al uses a single laser source and subsequent beam splitting, the ability of providing separate laser sources in order to generate plural optical signals is taught by the Ogata et al reference – see figure 5 for instance.

It would have been obvious to modify the base system of Endoh et al with the above teaching from Ogata et al, motivation is to use separate lasers and hence increase the MTF (mean time between

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failures) for the overall system. Alternatively, such is considered an equivalent ability to generate plural optical beams.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. See the above response.

3. Claims 7 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 13 above, and further in view of Official notice.

With respect to the limitations of these claims, both systems provide for an appropriate wavelength for the laser source. Although both system use/describe photoresist material for their optical records, there is no disclosed thickness. Since there inherently must be a thickness for the material in order to provide the recorded disc, the examiner takes Official notice of providing an appropriate thickness of photoresist material so as to record the information accordingly. Finally, the particular range of the thickness is considered merely an optimization of the thickness so as to yield an acceptable signal upon reproduction.

It would have been obvious to modify the base system of either of the base references as relied upon as stated above, and further modify such with Official notice (use of photoresist materials) in this environment so as to provide for a photoresist layer. Furthermore, the final ability of varying/selecting an appropriate thickness of this material is considered an obvious ability, that is one provides for an appropriate thickness of the photoresist material so as to yield an acceptable s/n ratio of the reproduced signal.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. See the above response.

4. Claims 8, 9, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 14 above, and further in view of Auwens et al.

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Although the above base references provide for both the rom and writeable areas, there is no specific mentioning of logic circuitry in use with the modulators, as well as sync provisions, nor a microprocessor.

Auwens et al discloses in this environment, the ability of using a microprocessor, (control unit 20) which provides for the appropriate control/timing information to the remaining system units in order to yield a real time recorded signal. Since the information is video, there is of course sync information.

It would have been obvious to modify the base system of either of the above base references and further modify such with the above teachings from Auwens et al, motivation is to use an overall microprocessor to generate the appropriate timing/control signals relied upon by further system units in order to generate a real time recorded signal. Use of existing elements/ microprocessors eliminates the need to recreate control circuitry, and hence is motivation in order to combine such with the base systems.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. See the above response.

5. Claims 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 13 and 21 above, and further in view of Browne et al and Yanagimachi et al.

With respect to the limitations of claims 16 & 23, Browne et al discloses EFM modulation circuitry, which is not specifically shown in either of the base systems. It would have been obvious to modify the base system of either Ogata et al and Endoh et al with the above teaching from Browne et al, motivation is to use conventional EFM modulation circuitry in this environment for their inherent use. The ability of having difference depths for the wobble groove vs. the information pits is further taught in Yanagimachi et al.

It would have been obvious to modify the above combined systems with the additional depth teaching from Yanagimachi et al, motivation is as discussed in Yanagimachi et al, - see the abstract.

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Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. See the above response.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 14 above, and further in view of Browne et al and Yanagimachi et al and Sannino et al.

With respect to claim 25, the additional ability of using "flag" signals to indicate the presence of EFM signals, is further discussed taught by the Sannino et al system.

It would have been obvious to modify the base system of as discussed above in paragraph 11 with the additional flag signal teaching from Sannino et al, motivation is to distinguish between various signal formats and use existing flag generating circuitry for the efm signals as signal format discrimination.

Response to Arguments

Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. See the above response.

Allowable Subject Matter

7. Claims 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 27-34 are allowed. None of the cited prior art teaches/discloses in this environment the further ability as recited in section (e) (iv) as found in claim 27.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sato et al – which can also be relied upon as a primary reference – note the description with respect to figure 5b.

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10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653



AMP